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=> fil wpids

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DERWENT WEEK FOR POLYMER INDEXING:  199932
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=> d his


     (FILE 'HOME' ENTERED AT 13:27:16 ON 19 AUG 1999)

     FILE 'WPIDS' ENTERED AT 13:27:23 ON 19 AUG 1999
L1            6 S MULTIPLE (2A) BIND?(2A) (ASSAY# OR IMMUNOASSAY# OR PARTNER#
O
L2        18213 S ASSAY# OR IMMUNOASSAY# OR IMMUNOCHEMICAL
L3            6 S L1 AND L2
L4         4182 S ANALYTE?
L5          578 S ANALYTE (2A) BIND?
L6          460 S L5 AND L2
L7          677 S BINDING  (2A) PARTNER#
L8           84 S L6 AND L7
L9           74 S L7 (3A) (TWO OR SECOND)
L10          34 S L9 AND  L4 AND L2
L11       14630 S SOLID (2W)(PHASE  OR SUPPORT#)
L12          10 S L10 AND L11
L13     1596233 S POLYMER? OR FILM# OR SHEET# OR STRIP# OR PARTICLE# OR
MICROTI
L14      219809 S POLYSTYRENE OR POLYETHYLENE OR POLYPROPYLENE OR
POLYMETHYLMET
L15          13 S L10 AND (L13 OR L14)
L16          19 S L15 OR L12
L17      144376 S FLUORES? OR DYE# OR CYANINE
L18           4 S L3 AND (L17 OR L4)
L19           2 S L16 AND L17
L20        4553 S (TWO OR SECOND) (4A) (BIND?)
L21          15 S L16 AND LABEL?
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L22          15 S L21 OR L19
L23         187 S L20 AND L4 AND L2
L24         114 S L23 AND (L11 OR L13 OR L14)
L25          16 S L24 AND L17
L26          14 S L25 NOT (L18 OR L22)

     FILE 'WPIDS' ENTERED AT 13:50:19 ON 19 AUG 1999

=> d .wp l18 1-4


L18  ANSWER 1 OF 4  WPIDS COPYRIGHT 1999   DERWENT INFORMATION LTD
AN   1996-189343 [20]   WPIDS
DNN  N1996-158298       DNC C1996-060502
TI   Binding matrix for multiple simultaneous
     assays - has numerous, spaced spots, of metal each bound to a
     specific binding reactant, partic. for immunoassays or DNA
     diagnosis.
DC   B04 D16 S03
IN   BATZ, H; MUTTER, W; SLUKA, P
PA   (BOEF) BOEHRINGER MANNHEIM GMBH; (HOFF) ROCHE DIAGNOSTICS GMBH
CYC  19
PI   DE 4435727    A1 19960411 (199620)*      13p
     WO 9611404    A1 19960418 (199621)  DE   33p
        RW: AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE
         W: JP US
     EP 784794     A1 19970723 (199734)  DE
         R: AT CH DE ES FR GB IT LI
     JP 10506996   W  19980707 (199837)       26p
ADT  DE 4435727 A1 DE 1994-4435727 19941006; WO 9611404 A1 WO 1995-EP3875
     19950930; EP 784794 A1 EP 1995-934123 19950930, WO 1995-EP3875 19950930;
     JP 10506996 W WO 1995-EP3875 19950930, JP 1996-512306 19950930
FDT  EP 784794 A1 Based on WO 9611404; JP 10506996 W Based on WO 9611404
PRAI DE 1994-4435727  19941006
AB   DE   4435727 A UPAB: 19990424
     Binding matrix comprises a flat carrier covered, in parallel to the
     horizontal direction of its surface, with many spatially sepd. regions
     carrying an immobilised binding partner (BP1), each able to bind to the
     free second component (BP2) of its specific binding pair. Also claimed
are
     : (1) an analytical element for the detection of free reactants in a
     sample and (2) a method using the above mentioned element.
          USE - The matrix is useful in multiple assay, either of
     different components in the same sample or of the same analyte
     in many samples, partic. with detection by confocal fluorescence
     microscopy or surface plasmon resonance (all claimed). Partic. they are
     used in immunoassay (esp. for diagnosis of allergies) and DNA
     diagnoses.
          ADVANTAGE - Very small amts. of many BP1 can be simply deposited on
     precisely defined surface positions. This makes reproducible, multiple
     assay with reduced non specific binding possible.
     Dwg.0/2

L18  ANSWER 2 OF 4  WPIDS COPYRIGHT 1999   DERWENT INFORMATION LTD
AN   1995-336747 [43]   WPIDS
DNN  N1995-252532       DNC C1995-148462
TI   Novel binding assay for multiple
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analytes - utilises **binding** agents with tail gps..
DC B04 D16 J04 S03
IN EKINS, R P
PA (MULT-N) MULTILYTE LTD
CYC 63
PI WO 9524649 A1 19950914 (199543)* EN 31p
RW: AT BE CH DE DK ES FR GB GR IE IT KE LU MC MW NL OA PT SD SE SZ UG
W: AM AT AU BB BG BR BY CA CH CN CZ DE DK EE ES FI GB GE HU JP KE KG
KP KR KZ LK LR LT LU LV MD MG MN MW MX NL NO NZ PL PT RO RU SD SE
SG SI SK TJ TT UA UG US UZ VN
AU 9518571 A 19950925 (199601)
FI 9603560 A 19960910 (199649)
EP 749581 A1 19961227 (199705) EN
R: AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE
EP 749581 B1 19981202 (199901) EN
R: CH DE ES FR GB IT LI
JP 10512664 W 19981202 (199907) 30p
DE 69506387 E 19990114 (199908)
ES 2127514 T3 19990416 (199922)
ADT WO 9524649 A1 WO 1995-GB521 19950310; AU 9518571 A AU 1995-18571 19950310;
FI 9603560 A WO 1995-GB521 19950310, FI 1996-3560 19960910; EP 749581 A1 EP 1995-910661 19950310, WO 1995-GB521 19950310; EP 749581 B1 EP 1995-910661 19950310, WO 1995-GB521 19950310; JP 10512664 W JP 1995-523319
19950310, WO 1995-GB521 19950310; DE 69506387 E DE 1995-606387 19950310, EP 1995-910661 19950310, WO 1995-GB521 19950310; ES 2127514 T3 EP 1995-910661 19950310
FDT AU 9518571 A Based on WO 9524649; EP 749581 A1 Based on WO 9524649; EP 749581 B1 Based on WO 9524649; JP 10512664 W Based on WO 9524649; DE 69506387 E Based on EP 749581, Based on WO 9524649; ES 2127514 T3 Based on
EP 749581
PRAI GB 1994-4709 19940311
AB WO 9524649 A UPAB: 19951102
Method (I) for the determn. of the concn. of 1 **analyte** in a liq. sample comprises:(a) immobilising 1 capture agent on a solid support, each
capture agent being capable of specifically binding a given binding agent;(b) contacting the liq. sample with 1 binding agent, each binding agent having binding sites specific for a given **analyte** (so that a fraction of the binding sites become occupied by the **analyte**) and a tail gp. (adapted to bind to a corresp. capture agent);(c) contacting the liq. sample, either simultaneously or sequentially with step (b), with the immobilised capture agents so that the binding agents become bound to their respective capture agents, and(d) determining a value representative of the fraction of the binding sites of a given binding agent occupied by an **analyte**, so as to determine the concn. of the **analyte** in the liq. sample.

Also claimed are:(1) a method of immobilising 1 binding agent on a support, each agent having binding sites specific for a given **analyte** and a tail gp. adapted to bind to a capture agent comprising:(i) as (a) above, and(ii) contacting the binding agents with the support which the capture agents are immobilised on so that the binding agents become specifically bound to their respective capture agents through their tail gps.;(2) a kit for carrying out (I), and(3) a kit for customising an **assay** for (I).

USE - The use of the tail gps. and capture agents can allow the binding of the **analytes** to the binding agents to take place in soln., rather than at a surface, enhancing the kinetics of this process.

ADVANTAGE - The user of the **assay** can customise any suitable binding agents for use with a universal support by attaching tail gps. to them (claimed).

Dwg.4/4

L18 ANSWER 3 OF 4 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD
AN 1993-344961 [43] WPIDS
CR 1991-353898 [48]
DNC C1993-152812
TI Solvent mediated relaxation **assay** - based on measurements of relaxation rates of solvent obtd. with magnetic resonance spectrometer.
DC B04 D16 J04
IN GROMAN, E V; JOSEPHSON, L; MENZ, E T
PA (ADMA-N) ADVANCED MAGNETICS INC
CYC 1
PI US 5254460 A 19931019 (199343)* 14p
ADT US 5254460 A CIP of US 1990-518567 19900503, US 1991-695378 19910503
PRAI US 1990-518567 19900503; US 1991-695378 19910503
AB US 5254460 A UPAB: 19940111

Method of assaying the concn. of an **analyte** (I) in a solvent, (I) being a protein, a substrate of an enzyme or a prod. of a reaction of the enzyme, is claimed. The method comprises (a) selecting a magnetic material (II) having positive magnetic susceptibility to alter the relaxation characteristics of a nucleus included in the solvent, the relaxation characteristics being obtd. by a magnetic resonance technique, the magnetic material being selected so that its effect on the relaxation of the nucleus included in the solvent, is modified by the interaction of (I) with (II); (b) causing (II) and (I) to be located in the solvent; (c) allowing (II) to interact with (I); and (d) measuring the relaxation characteristics of the nucleus by a magnetic resonance technique.

The method is also claimed for measuring the rate of an enzyme reaction in a solvent and for assaying the concn. of (I) in a solvent in vitro by determining the change in the identified characteristic nuclear relaxation property of the solvent caused by the presence of (I).

USE/ADVANTAGE - The method, known as solvent mediated relaxation **assay** system (SMRAS), has many advantages over other types of ligand binding **assays**. It can work on opaque fluids, does not require a sepn. of bound and free ligands and can measure widely different types of materials as **analytes**. A wide variety of magnetic materials including super-paramagnetic iron oxide colloids, paramagnetic chelates, ions or red blood cells, or ferromagnetic particles can be used in SMRAS. SMRAS also offers the possibility of performing **multiple** ligand **binding assays** simultaneously by utilising many of the data redn. and instrumentation techniques developed for MR imaging.

Dwg.0/7

L18 ANSWER 4 OF 4 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD
AN 1990-115445 [15] WPIDS
DNN N1990-089437 DNC C1990-050729
TI Cascade immuno **assay** procedure - utilising **multiple binding** reactions.

DC B04 D16 S03
IN HOKE, R A; MAPES, J P
PA (BECT) BECTON DICKINSON CO
CYC 1
PI US 4904583 A 19900227 (199015)*
ADT US 4904583 A US 1987-53896 19870526
PRAI US 1987-53896 19870526
AB US 4904583 A UPAB: 19930928
Determining an **analyte** (I) in a liq. The method comprises (a) combining a first liq. contg. (I) with a tracer comprising an unmasking enzyme and with a solid support to which are randomly affixed, an **analyte** (II) and an immunologically active component (Im2), whereby (I) binds to (II) and the tracer binds to one of (I) and (II) to give a first bound fraction on the support; (b) replacing the first liq. with a second liq. contg. (i) a second immunologically active cpd. (Im2) conjugated to a masking gp., the unmasking enzyme removing the masking gp. to give free (Im2), which binds to (Im1), and (ii) a signal enzyme conjugated to one of (Im2) and a third immunologically active component (Im3) specific for(Im2), the signal enzyme becoming affixed to the support, (c) replacing the second liq. with a third liq. contg. a substrate which is converted by the signal enzyme to a prod.; and (d) determining (I) by a signal associated with the prod.

Pref. (Im1) is an antiligand and binding occurs in the first liq., the support is sepd. from the first liq. and suspended in the second liq. In the latter, (Im2) is a ligand, which is conjugated to a masking gp. and the signal enzyme is added encapsulated in a liposome which also has ligand conjugated to it. The unmasking enzyme removes the masking gp. to give free lligand and the antiligand binds competitively with the ligand on the liposome and the free ligand.

Complement and a substrate for the signal enzyme are then added to the second liq., the complement lysing a liposome having conjugated ligand bound to antiligand, the lysing causing release of the signal enzyme which then converts the substrate to a prod. (I) is then determined by a signal associated with the prod.

ADVANTAGE - Increased sensitivity 100 fold or more in the determn. of (I) present in biological fluids in very low concn. For **assays** not requiring high sensitivity, this i can be utilised to decrease **assay** time.
0/0

=> d .wp l22 1-15

L22 ANSWER 1 OF 15 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD
AN 1997-435284 [40] WPIDS
DNN N1997-362019 DNC C1997-139718
TI Positive read-out competitive binding **assay** device - comprising chromatographic **strip** with limiting quantity of diffusible indirect **label** which is detected at detection zone.
DC B04 D16 J04 S03
IN MAPES, J P
PA (ENSY-N) ENSYS ENVIRONMENTAL PROD INC
CYC 74

PI WO 9731269 A1 19970828 (199740)* EN 41p
RW: AT BE CH DE DK EA ES FI FR GB GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG
W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE HU IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK TJ TM TR TT UA UG UZ VN
AU 9719713 A 19970910 (199802)
EP 886779 A1 19981230 (199905) EN
R: BE DE FR GB IT NL
US 5874216 A 19990223 (199915)
ADT WO 9731269 A1 WO 1997-US2852 19970224; AU 9719713 A AU 1997-19713 19970224; EP 886779 A1 EP 1997-907812 19970224, WO 1997-US2852 19970224; US 5874216 A US 1996-606385 19960223
FDT AU 9719713 A Based on WO 9731269; EP 886779 A1 Based on WO 9731269
PRAI US 1996-606385 19960223
AB WO 9731269 A UPAB: 19971006

Chromatographic **strip** positive readout competitive binding **assay** device comprises a chromatographic **strip** having a length and narrow width capable of conveying fluids in a fluid flow direction generally parallel to the length of the **strip**.

The **strip** comprises the following zones:

(a) a sample contact zone where fluid sample suspected of containing an **analyte** may be contacted with the **strip**;

(b) a **labelled** anti-first binding partner zone disposed at, or downstream from the sample contact zone comprising diffusable **labelled** anti-first binding partner;

(c) a first binding partner zone disposed at, or downstream from the **labelled** anti-first binding partner zone comprising diffusable unlabelled first binding partner to bind approximately at least all of the **labelled** anti-first binding partner;

(d) a trapping zone on the **strip** at, or downstream from the first **binding partner** zone comprising immobilised **second binding partner** to bind at least a sufficient amount of the unlabelled first binding partner to bind all of the **labelled** anti-first binding partner, and

(e) a detection zone located on the **strip** downstream from the trapping zone comprising an immobilised binding moiety specific for the diffusable unlabelled first binding partner.

Also claimed is a chromatographic **strip**-based positive readout competitive binding **assay** device comprising a chromatographic **strip** having a length and narrow width capable of conveying fluids in a fluid flow direction generally parallel to the length of the **strip**, comprising:

(a) a sample contact zone where fluid suspected of containing an **analyte** may be contacted with the **strip**;

(b) a trapping zone located at, or downstream from, the sample contact zone comprising immobilised **second binding partner** to bind at least a sufficient amount of the unlabelled first binding partner to bind all of the **labelled** anti-first binding partner, and

(c) a detection zone located on the **strip** downstream from the trapping zone comprising an immobilised binding moiety specific for the diffusible unlabelled first binding partner.

USE - The devices can be used for field testing and screening for small molecules such as environmental contaminants, drugs of abuse, therapeutic drugs and hormones.

ADVANTAGE - Using the devices, binding partners with binding affinities of < 10-7 which would not otherwise be appropriate for a positive readout competitive binding **assay**, can be used to achieve accurate and reproducible results. The devices provide a signal that increases in proportion to the concentration of **analyte** in the test sample. The limiting quantity of indirect **label** used in the device reduces bleed-through and false positives.
Dwg.1/1

L22 ANSWER 2 OF 15 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD
AN 1996-343643 [35] WPIDS
DNN N1996-289267 DNC C1996-109183
TI Quantitative detection of **analytes** using an immuno-chromatographic **strip** - contg. **labelled** **analyte** binding partner and detection zone(s) where **label** is detected using instrument contg. detector.
DC B04 D16 J04 S03
IN SOMMER, R G
PA (FARB) BAYER CORP; (MILE) MILES LAB INC
CYC 20
PI EP 724157 A2 19960731 (199635)* EN 12p
R: AT BE CH DE DK FR GB GR IE IT LI LU NL PT SE
AU 9642226 A 19960808 (199640)
CA 2166913 A 19960731 (199646)
JP 08240591 A 19960917 (199647) 9p
US 5569608 A 19961029 (199649) 11p
ZA 9600357 A 19961030 (199649) 30p
ADT EP 724157 A2 EP 1996-100599 19960117; AU 9642226 A AU 1996-42226 19960129;
CA 2166913 A CA 1996-2166913 19960110; JP 08240591 A JP 1996-13273 19960129; US 5569608 A US 1995-380119 19950130; ZA 9600357 A ZA 1996-357 19960117
PRAI US 1995-380119 19950130
AB EP 724157 A UPAB: 19960905
An **analyte** is determined in a fluid by applying the fluid to an immuno-chromatographic matrix, where the fluid flows up along the matrix by capillarity and the matrix contains a **labelled** binding partner for the **analyte** and has 1 detection zone where the **analyte** is determined by detecting this **label** using an instrument contg. a detector.
USE - The method can be used to determine an **analyte**, partic. human serum albumin (HSA), in a test fluid.
ADVANTAGE - The method is an improved **assay** as it uses an instrument with a detector (spectrometer) to determine the concn. of the **label**.
Dwg.5/7

L22 ANSWER 3 OF 15 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD
AN 1996-240147 [25] WPIDS
DNN N1996-201035 DNC C1996-076698
TI Heterogeneous **immunoassay** suitable for use in standard centrifugal analysers - using particulate solids carrying specific **binding partner** with addn. of **second** binding component as precipitant to accelerate sedimentation during centrifugation.
DC B04 D16 J04 S03
IN KRAUS, M

PA (DADE-N) DADE BEHRING MARBURG GMBH; (BEHW) BEHRINGWERKE AG
CYC 18
PI DE 4440487 A1 19960515 (199625)* 17p
EP 713094 A1 19960522 (199625) DE 20p
R: AT BE CH DE DK ES FR GB GR IT LI LU NL PT SE
AU 9537751 A 19960523 (199628)
CA 2162660 A 19960513 (199637)
JP 08220095 A 19960830 (199645) 12p
AU 705684 B 19990527 (199932)
ADT DE 4440487 A1 DE 1994-4440487 19941112; EP 713094 A1 EP 1995-116177 19951013; AU 9537751 A AU 1995-37751 19951110; CA 2162660 A CA 1995-2162660 19951110; JP 08220095 A JP 1995-292518 19951110; AU 705684 B AU 1995-37751 19951110
FDT AU 705684 B Previous Publ. AU 9537751
PRAI DE 1994-4440487 19941112
AB DE 4440487 A UPAB: 19960625
Immunochemical detection of an **analyte** (A) in biological fluid comprises: (a) immobilising an unlabelled specific binding partner (SBP1) for (A) onto a pipettable particular solid; (b) incubating the sample with SBP1; (c) adding a known amt. of **labelled** specific detection substance (conjugate, C) and incubating it again; (d) adding a precipitant (P) for the **solid phase**; (e) centrifuging the mixt. at pref. 10-1000 (esp. 200-800) g; (f) transferring at least part of the supernatant to a second measuring vessel; (g) starting the detection reaction in this vessel and determining (A) concn. from this reaction. (P) is 1 specific binding partner (SBP2) directed against either the **solid phase**, (A), or an anchoring substance immobilised on the **solid phase**, and partic. is derived from a species other than that providing SBP1.
USE - The method is used to determine e.g. antibodies at very low concns. for the diagnosis or therapy of disease.
ADVANTAGE - The method can be carried out in currently available centrifugal analysers. Addn. of P increases the rate of sedimentation so that only 0.1-10 (esp. 1-3) mins. of centrifugation is required and total **assay** time is 2-60 (esp. 10-30) mins. Only a few pipetting steps and components are needed. No special washing or sepn. stages are involved. The method can be applied to (A) having one or many epitopes and can be carried out in direct or competitive formats.
Dwg.1/7

L22 ANSWER 4 OF 15 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD
AN 1995-240773 [31] WPIDS
DNN N1995-187702 DNC C1995-110435
TI **Assay** for **analytes** in test samples - using two independently determinable forms of solid-supported binding partner and **labelled** ligand.
DC B04 J04 S03
IN FRENGEN, J
PA (HOLM-I) HOLMES M J; (SINV-N) SINVENT AS
CYC 22
PI WO 9517674 A1 19950629 (199531)* EN
RW: AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE
W: AU CA FI JP NO US
AU 9513220 A 19950710 (199543)

EP 736177 A1 19961009 (199645) EN
R: DE FR GB IT
JP 09506973 W 19970708 (199737) 25p
EP 736177 B1 19970917 (199742) EN 12p
R: DE FR GB IT
DE 69405781 E 19971023 (199748)
US 5723346 A 19980303 (199816)
ADT WO 9517674 A1 WO 1994-GB2816 19941223; AU 9513220 A AU 1995-13220 19941223; EP 736177 A1 WO 1994-GB2816 19941223, EP 1995-904618 19941223; JP 09506973 W WO 1994-GB2816 19941223, JP 1995-517286 19941223; EP 736177 B1 WO 1994-GB2816 19941223, EP 1995-904618 19941223; DE 69405781 E DE 1994-605781 19941223, WO 1994-GB2816 19941223, EP 1995-904618 19941223;
US 5723346 A WO 1994-GB2816 19941223, US 1996-663122 19961001
FDT AU 9513220 A Based on WO 9517674; EP 736177 A1 Based on WO 9517674; JP 09506973 W Based on WO 9517674; EP 736177 B1 Based on WO 9517674; DE 69405781 E Based on EP 736177, Based on WO 9517674; US 5723346 A Based on WO 9517674
PRAI GB 1993-26379 19931223
AB WO 9517674 A UPAB: 19950810
Assaying **analyte** in a sample comprises reacting the sample with a first binding partner (BP) having affinity for the **analyte**, a **labelled** ligand (LL) having affinity for the **analyte** or first BP, and a second BP having affinity for the LL.

The first and second BPs being independently determinable solid-supported forms whereby signals with respect to the resulting **labelled** ligand-carrying first and second BPs may be independently determined and the **analyte** concn. obtd. by reference to a double standard calibration curve.

ADVANTAGE - The method provides a wide dynamic working range coupled with a high degree of precision.
Dwg.0/2

L22 ANSWER 5 OF 15 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD
AN 1995-224442 [29] WPIDS
CR 1992-433819 [52]; 1995-106547 [41]; 1995-224441 [29]; 1997-034502 [03]; 1997-034507 [03]; 1997-372069 [34]
DNN N1995-175937 DNC C1995-103258
TI New chromatographic **assay** devices - useful for performing simultaneous immunological and serological **assays**.
DC A96 B04 D16 S03
IN CHANDLER, H M
PA (SMIK) SMITHKLINE DIAGNOSTICS INC
CYC 59
PI WO 9516208 A1 19950615 (199529)* EN 77p
RW: AT BE CH DE DK ES FR GB GR IE IT KE LU MC MW NL OA PT SD SE SZ
W: AM AT AU BB BG BR BY CA CH CN CZ DE DK ES FI GB GE HU JP KE KG KP KR KZ LK LT LU LV MD MG MN MW NL NO NZ PL PT RO RU SD SE SI SK TJ TT UA US UZ VN
AU 9513008 A 19950627 (199541)
US 5468648 A 19951121 (199601) 23p
EP 733211 A1 19960925 (199643) EN
R: BE CH DE ES FR GB IT LI NL SE
ZA 9501128 A 19970430 (199723)# 75p
JP 09506177 W 19970617 (199734) 60p
CN 1137316 A 19961204 (199805)

AU 684585 B 19971218 (199808)
EP 733211 B1 19980513 (199823) EN 36p
R: BE CH DE ES FR GB IT LI NL SE
DE 69410293 E 19980618 (199830)
ES 2116719 T3 19980716 (199835)
ADT WO 9516208 A1 WO 1994-US14004 19941206; AU 9513008 A AU 1995-13008 19941206; US 5468648 A CIP of US 1991-706639 19910529, CIP of US 1992-888831 19920527, CIP of US 1993-40430 19930331, US 1993-163341 19931207; EP 733211 A1 WO 1994-US14004 19941206, EP 1995-904245 19941206; ZA 9501128 A ZA 1995-1128 19950213; JP 09506177 W WO 1994-US14004 19941206, JP 1995-516281 19941206; CN 1137316 A CN 1994-194425 19941206; AU 684585 B AU 1995-13008 19941206; EP 733211 B1 WO 1994-US14004 19941206, EP 1995-904245 19941206; DE 69410293 E DE 1994-610293 19941206, WO 1994-US14004 19941206, EP 1995-904245 19941206; ES 2116719 T3 EP 1995-904245 19941206
FDT AU 9513008 A Based on WO 9516208; EP 733211 A1 Based on WO 9516208; JP 09506177 W Based on WO 9516208; AU 684585 B Previous Publ. AU 9513008, Based on WO 9516208; EP 733211 B1 Based on WO 9516208; DE 69410293 E Based on EP 733211, Based on WO 9516208; ES 2116719 T3 Based on EP 733211
PRAI US 1993-163341 19931207; US 1991-706639 19910529; US 1992-888831 19920527; US 1993-40430 19930331; ZA 1995-1128 19950213
AB WO 9516208 A UPAB: 19990302
Novel **assay** device for detection of at least 2 **analytes** in a test sample comprises: (a) a first opposable component (I) including at least 1 chromatographic medium having a specific binding partner (SBP) to the first **analyte** (A1) and an SBP to the second **analyte** (A2) immobilised on it in separate discrete, non-overlapping zones; and (b) a second opposable component (II) including an absorber. (I) and (II) are configured such that bringing them into opposition causes the absorber to come into operable contact with at least chromatographic medium so that the zone contg. the (A1) sbp is functionally divided from the zone contg. the (A2) SBP, so that both **analytes** can be detected. Also claimed are: (1) a component having (i) a chromatographic medium with the two SBPs and (ii) a first applicator to apply a sample and a **labelled** SBP to (A1) to the chromatographic medium; and (II) having (i) a second applicator to apply a detection reagent for (A2) to the chromatographic medium and (ii) an absorber, the latter acting to functionally divide the chromatographic medium into two sectors, a first sector for the detection of (A1) and a second sector for the detection of (A2), when (I) and (II) are brought into opposition; (2) a component having (i) a chromatographic medium with the two SBPs and (ii) a sample prepn. zone sepg. the (A1) SBP and the (A2) SBP; and (II) having (i) an absorber; (ii) a first applicator and (iii) a second applicator; (3) (I) having (i) a chromatographic medium with the two SBPs; (ii) a conjugate zone contg. an SBP to A1 **labelled** with a first detectable **label**, the conjugate zone being in operable contact with the first end of the chromatographic medium; (iii) a first applicator in operable contact with the conjugate zone, the conjugate zone bridging the first applicator and the first end of the

chromatographic medium; and (iv) a conductor in operable contact with the second end of the chromatographic medium; and (II) having (i) an absorber and (ii) a second applicator sepd. from the absorber, the second applicator contg. a detection reagent for (A2) in a form that can be resolubilised by the addn. of an aq. liq. to the second applicator; (3) a component having 2 conductors in operable contact with opposite ends of the chromatographic medium, in addn. to a sample prepn. zone; and (II) having (i) an absorber; (ii) a first applicator sepd. from the absorber and contg. an (A1) SBP **labelled** with a detectable **label** in a form that can be resolubilised by the addn. of an aq. liq. to the first applicator; and (iii) a second applicator sepd. from the absorber and contg. a detection reagent for (A2) in a form that can be resolubilised by the addn. of an aq. liq. to the second applicator; and (4) a component as in (3) with an additional second chromatographic medium having on a discrete zone, an SBP for (A2).

USE - The **assay** device can perform at least 2 **assays** on the same test **strip** simultaneously, an immunological **assay** for detection of an antigen and a serological **assay** for detection of an antibody. This can provide for the diagnosis of two diseases or conditions at once, or, alternatively, for the detection of both an antigen associated with a pathogen or infectious agent, and an antibody associated with an immune response to the pathogen or infectious agent.

ADVANTAGE - The use of opposable elements provides great versatility, as it permits the performance of reactions in a number of different sequences, allowing the delivery of reagents to precisely defined regions of a test **strip** or other reaction component. It also provides optimum performance with minimum consumption of reagents by ensuring that reagents are not wasted by being sequestered in dead vols. of apparatus, and optimum containment of possibly contaminated blood samples. Other advantages include reduced interference and rapid kinetics of **labelling**. Test methods using the devices have a wide dynamic range and are free from false negatives that may occur in other test methods at high concns. of **analyte**.

Dwg.4/5

L22 ANSWER 6 OF 15 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD
AN 1994-350028 [44] WPIDS
DNN N1994-274641 DNC C1994-159448
TI Competitive **immunoassay** using enzyme-**labelled** **analyte** analogue - incorporated into divided test **strip** also contg. immobilised binding partner, for simple detection of antigens.
DC B04 D16 S03
IN ROHDEWALD, P; STEENWEG, T
PA (ROHD-I) ROHDEWALD P; (STEE-I) STEENWEG T
CYC 1
PI DE 4314493 A1 19941110 (199444)* 6p
ADT DE 4314493 A1 DE 1993-4314493 19930503
PRAI DE 1993-4314493 19930503
AB DE 4314493 A UPAB: 19941223
Determn. of the concn. of an **analyte** in a sample comprises: (i) an **analyte** (I), pref. in body fluid constituting one member of a specific binding pair; (ii) an enzyme-**labelled** **analyte** analogue (Ia); and (iii) the **second binding**

partner (BP) in carrier bound form. The sample, (Ia) and BP are incubated together, then the amt. of (Ia) that remains unbound is determined as a measure of (I) concn. by enzymatic reaction with a colour-forming substrate. A test **strip** is used that fixes the binding sequence and other reactions solely by capillary liq. transport. Also claimed are the test **strips**. These contain (Ia), immobilised BP, enzyme substrates and reagents for optimising reaction between substrate and enzyme. They are divided in 2 zones and are made of porous material that permits capillary liq. flow.

USE - The method is used to **assay** antigens, specifically cortisol in saliva.

ADVANTAGE - The test **strips** provide rapid, quantitative results and can be used without special training. Only a single incubation is involved and manual application of (Ia) is not required.

Dwg.2/2

L22 ANSWER 7 OF 15 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD
AN 1993-387999 [49] WPIDS
DNN N1993-299640 DNC C1993-172559
TI **Solid phase immunoassay** using two specific binders - with addn. of unlabelled binding factor for the **analyte** to increase sensitivity by inhibiting back reaction.
DC B04 J04 S03
IN BRUST, S
PA (BEHW) BEHRINGWERKE AG; (BEHW) BEHRING DIAGNOSTICS GMBH; (DADE-N) DADE BEHRING MARBURG GMBH
CYC 18
PI EP 572845 A1 19931208 (199349)* DE 8p
R: AT BE CH DE DK ES FR GB IT LI LU NL PT SE
DE 4218257 A1 19931209 (199350) 8p
AU 9339966 A 19931209 (199405)
CA 2097545 A 19931204 (199408)
JP 06058937 A 19940304 (199414) 6p
AU 668937 B 19960523 (199628)
EP 572845 B1 19980401 (199817) DE 8p
R: AT BE CH DE DK ES FR GB IT LI LU NL PT SE
DE 59308328 G 19980507 (199824)
ES 2117067 T3 19980801 (199838)
US 5914243 A 19990622 (199931)
ADT EP 572845 A1 EP 1993-107931 19930514; DE 4218257 A1 DE 1992-4218257 19920603; AU 9339966 A AU 1993-39966 19930602; CA 2097545 A CA 1993-2097545 19930602; JP 06058937 A JP 1993-131567 19930602; AU 668937 B AU 1993-39966 19930602; EP 572845 B1 EP 1993-107931 19930514; DE 59308328 G DE 1993-508328 19930514, EP 1993-107931 19930514; ES 2117067 T3 EP 1993-107931 19930514; US 5914243 A Cont of US 1993-69432 19930601, US 1995-441175 19950515
FDT AU 668937 B Previous Publ. AU 9339966; DE 59308328 G Based on EP 572845; ES 2117067 T3 Based on EP 572845
PRAI DE 1992-4218257 19920603
AB EP 572845 A UPAB: 19940126
Immunochemical determn. of an **analyte** (I) in a sample uses a first specific binding partner (P1) immobilised on a carrier and the degree of binding of (I) to P1 is determined using a **second binding partner** (P2) which is directly or indirectly **labelled**.

The new feature is that a binding factor (BF) is added which (a) has

more than one binding site for (I); (b) has no affinity for P1, and (c) is not **labelled** with the **label** used to generate the **assay** signal.

Also new are reagents for this process contg. BF. Partic. BF is added in the reaction stage where (I) binds to P2.

USE/ADVANTAGE - The method is used to detect antigens (partic. pathogens) or antibodies (induced by pathogens) in human and veterinary diagnosis. Addn. of BF reduces the rate of back reaction (between P1 and (I)), esp. a problem where the **analyte** is susceptible to mutations that reduce interaction with (P1) so sensitivity is improved. The method can be applied to any single- or multi-step process, esp. sandwich ELISA, e.g. for simultaneous analysis of HIV-1 and -2 and human cytomegalovirus.

Dwg.1/2

L22 ANSWER 8 OF 15 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD
AN 1993-329302 [42] WPIDS
DNN N1993-254257 DNC C1993-145548
TI Improving selectivity in **immunoassay** of T-neuronal cell adhesion molecule - by incubation in presence of suppressor having high affinity for **solid phase** antibody, for diagnosing lung cancer and foetal abnormalities.
DC B04 D16 S03
IN AUERBACH, B; PETERS, H
PA (BEHW) BEHRINGWERKE AG; (BEHW) BEHRING DIAGNOSTICS GMBH
CYC 18
PI EP 565903 A2 19931020 (199342)* DE 9p
R: AT BE CH DE DK ES FR GB IT LI LU NL PT SE
DE 4212706 A1 19931021 (199343) 8p
AU 9336928 A 19931021 (199349)
CA 2094089 A 19931017 (199403)
JP 06066794 A 19940311 (199415) 7p
EP 565903 A3 19940105 (199516)
AU 673822 B 19961128 (199704)
US 5593898 A 19970114 (199709) 6p
EP 565903 B1 19980211 (199811) DE 9p
R: AT BE CH DE DK ES FR GB IT LI LU NL PT SE
DE 59308129 G 19980319 (199817)
ES 2112348 T3 19980401 (199819)
ADT EP 565903 A2 EP 1993-104573 19930319; DE 4212706 A1 DE 1992-4212706 19920416; AU 9336928 A AU 1993-36928 19930414; CA 2094089 A CA 1993-2094089 19930415; JP 06066794 A JP 1993-88467 19930415; EP 565903 A3 EP 1993-104573 19930319; AU 673822 B AU 1993-36928 19930414; US 5593898 A Cont of US 1993-46177 19930414, US 1994-334035 19941102; EP 565903 B1 EP 1993-104573 19930319; DE 59308129 G DE 1993-508129 19930319, EP 1993-104573 19930319; ES 2112348 T3 EP 1993-104573 19930319
FDT AU 673822 B Previous Publ. AU 9336928; DE 59308129 G Based on EP 565903; ES 2112348 T3 Based on EP 565903
PRAI DE 1992-4212706 19920416
AB EP 565903 A UPAB: 19940209
Immunological determn. of one or more **analytes** (I) uses specific binding partners (BP), one of which is immobilised on a carrier, and measurement of the degree of (I) binding to the first BP by means of a second (I)-specific BP which is **labelled**, either directly or via further BP. The new feature is that reaction with at least one BP is

carried out in presence of a suppressor substance (55) having a high affinity for this BP but not for the other (or one of the further) BP.

Partic. the first BP specifically binds alpha-2,8-linked N-acetyl-neuraminic acid (2,8-NAcN) chains while the second is specific for the epitope recognised by monoclonal antibodies BW SCLC-1 or -2.

USE/ADVANTAGE - The method is esp. used in the T-NCAM (neuronal cell adhesion molecule) test, specifically for diagnosis of small cell lung cancer and for monitoring pregnancy to detect foetal abnormalities. The use of SS significantly improves differentiation between normal and pathological samples.

Dwg.0/1

L22 ANSWER 9 OF 15 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD
AN 1993-145413 [18] WPIDS
DNN N1993-111103 DNC C1993-064871
TI Sandwich-type heterogeneous **immunoassay** - using non-specific biotinylated antibody to scavenge streptavidin leached from **solid phase**.
DC B04 D16 S03
IN DEGER, A; UHL, W
PA (BOEF) BOEHRINGER MANNHEIM GMBH
CYC 18
PI EP 540037 A2 19930505 (199318)* DE 13p
R: AT BE CH DE DK ES FR GB GR IE IT LI LU NL PT SE
DE 4136010 A1 19930812 (199333) 9p
JP 05223817 A 19930903 (199340) 11p
US 5278081 A 19940111 (199403) 6p
EP 540037 A3 19940420 (199523)
JP 07099370 B2 19951025 (199547) 11p
EP 540037 B1 19961218 (199704) DE 14p
R: AT BE CH DE DK ES FR GB GR IE IT LI LU NL PT SE
DE 59207717 G 19970130 (199710)
ES 2097851 T3 19970416 (199722)
ADT EP 540037 A2 EP 1992-118637 19921030; DE 4136010 A1 DE 1991-4136010 19911031; JP 05223817 A JP 1992-292563 19921030; US 5278081 A US 1992-968139 19921029; EP 540037 A3 EP 1992-118637 19921030; JP 07099370 B2
JP 1992-292563 19921030; EP 540037 B1 EP 1992-118637 19921030; DE 59207717
G DE 1992-507717 19921030, EP 1992-118637 19921030; ES 2097851 T3 EP 1992-118637 19921030
FDT JP 07099370 B2 Based on JP 05223817; DE 59207717 G Based on EP 540037; ES 2097851 T3 Based on EP 540037
PRAI DE 1991-4136010 19911031
AB EP 540037 A UPAB: 19931112
Heterogeneous **immunoassays** for determn. of an **analyte** in a sample are effected by a process in which binding to a **solid phase** results from interaction between the components (X1 and X2) of a specific binding pair. The process comprises: (a) incubating the sample with an X1-coated **solid phase** and a 1st conjugate of X2 with an **analyte**-specific receptor; (b) incubating simultaneously or subsequently with a **labelled analyte**-specific receptor; (c) separating the phases; and (d) measuring the amt. of **label** in the **solid** or liq. **phase**. The improvement comprises adding a 2nd conjugate of X2 to the liq. phase before incubation, in excess over the 1st conjugate, where the 2nd conjugate comprises X2 linked to a macromolecule that does not

bind with the **analyte**.
USE/ADVANTAGE - The method may be used, e.g., for determn. of CA125 (not defined) or oestradiol in serum samples. Addn. of the 2nd conjugate reduces inaccuracies resulting from leaching of X1 from the **solid phase** into the liq. phase.
Dwg.0/0

L22 ANSWER 10 OF 15 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD
AN 1992-349370 [42] WPIDS
DNC C1992-155144
TI Specific binding **assay** for **analytes** for **immunoassay** - using **solid phase** system and displacer ligand for releasable ligand and reporter-**labelled** complex, for DNA probe **assay**.
DC B04 D16 J04
IN OBZANSKY, D M; SIMONS, D M; TSENG, S Y; TSENG, S
PA (DADE-N) DADE CHEM SYSTEMS INC; (DADE-N) DADE CHEMISTRY SYSTEMS INC; (DUPO) DU PONT DE NEMOURS & CO E I
CYC 17
PI WO 9216841 A1 19921001 (199242)* EN 67p
RW: AT BE CH DE DK ES FR GB GR IT LU MC NL SE
W: CA JP
EP 579676 A1 19940126 (199404) EN
R: DE FR GB IT
US 5332679 A 19940726 (199429) 16p
JP 06505802 W 19940630 (199430) 19p
EP 579676 B1 19961030 (199648) EN 32p
R: DE FR GB IT
DE 69214942 E 19961205 (199703)
ADT WO 9216841 A1 WO 1992-US1656 19920312; EP 579676 A1 EP 1992-908269 19920312, WO 1992-US1656 19920312; US 5332679 A Cont of US 1991-670459 19910312, US 1993-29971 19930212; JP 06505802 W JP 1992-507845 19920312, WO 1992-US1656 19920312; EP 579676 B1 EP 1992-908269 19920312, WO 1992-US1656 19920312; DE 69214942 E DE 1992-614942 19920312, EP 1992-908269 19920312, WO 1992-US1656 19920312
FDT EP 579676 A1 Based on WO 9216841; JP 06505802 W Based on WO 9216841; EP 579676 B1 Based on WO 9216841; DE 69214942 E Based on EP 579676, Based on WO 9216841
PRAI US 1991-670459 19910312; US 1993-29971 19930212
AB WO 9216841 A UPAB: 19971030
Assay comprises (a) prepg. an immobilised sandwich structure compirising (1) a **solid support** having a first binding partner (BP) attached through a linker, where the first BP is streptavidin, (succinylated)avidin, nucleic acid and antibody, (2) an **analyte** or a second BP:**analyte** complex and (3) a releasable ligand which is attached: (i) by temporary bond to the first BP
and through a covalent bond to the second BP of the second BP: **analyte** complex, where the **analyte** of the second BP: **analyte** complex is attached to a third BP having a detectable reporter, or (ii) by temporary bond to a third BP having a detectable reporter and by covalent bond to the second BP of the second complex, or (iii) by temporary bond to a second BP having a detectable reporter and by
covalent bond to the **analyte**, by contacting the **solid support** having a first BP attached with: (1) liq. sample suspected of contg. the **analyte**, (2) releasable ligand alone or attached

by a covalent bond to the second BP and (3) the second or third BP having a detectable reporter, (b) sepg. the immobilised sandwich structure from the soluble components, (c) breaking the temporary bond by: (1) adding an excess of a displacer ligand w.r.t. releasable ligand, or (2) adding a displacer ligand which has an affinity to first, second or third BP more than the affinity of the releasable ligand to the first, second or third BP and (d) measuring the detectable reporter in soln.

USE/ADVANTAGE - Sensitive, specific quantitative determn. of analyt

Dwg.0/0

L22 ANSWER 11 OF 15 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD
AN 1992-217845 [27] WPIDS
TI **Immunoassay** using particulate **solid phase** reagent - by releasing **label** from **solid phase** and measuring luminescence or **fluorescence**, for liq. sample determn..
DC B04 J04 S03
IN WISSEL, T
PA (BEHW) BEHRINGWERKE AG
CYC 16
PI DE 4041080 A 19920625 (199227)* 9p
EP 492499 A2 19920701 (199227) DE 12p
AU 9189896 A 19920625 (199233)
CA 2058175 A 19920622 (199237)
JP 04301764 A 19921026 (199249) 8p
EP 492499 A3 19921119 (199342)
AU 657719 B 19950323 (199519)
EP 492499 B1 19961120 (199651) DE 14p
R: AT BE CH DE DK ES FR GB IT LI LU NL SE
DE 59108366 G 19970102 (199706)
ES 2094784 T3 19970201 (199712)
ADT DE 4041080 A DE 1990-4041080 19901221; EP 492499 A2 EP 1991-121935 19911220; AU 9189896 A AU 1991-89896 19911220; CA 2058175 A CA 1991-2058175 19911220; JP 04301764 A JP 1991-337431 19911220; EP 492499 A3
EP 1991-121935 19911220; AU 657719 B AU 1991-89896 19911220; EP 492499 B1 EP 1991-121935 19911220; DE 59108366 G DE 1991-508366 19911220, EP 1991-121935 19911220; ES 2094784 T3 EP 1991-121935 19911220
FDT AU 657719 B Previous Publ. AU 9189896; DE 59108366 G Based on EP 492499; ES 2094784 T3 Based on EP 492499
PRAI DE 1990-4041080 19901221
AB DE 4041080 A UPAB: 19931006
Immunoassay comprises (a) incubating the sample with a (magnetically separable) particulate **solid-phase** reagent and a luminophore- or fluorophor-**labelled** reagent partitioned between the liq. and solid phases as a function of the **analyte** concn.; (b) sepg. the **solid-phase particles**; (c) resuspending the **particles** in a medium releasing the **label** from the **particles**; (d) removing the **particles**; and (e) measuring the luminescence or **fluorescence** of the medium.

ADVANTAGE - Reduced dependence of the luminescence signal on the **particle** conc. (cf. EP-149565).

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L22 ANSWER 12 OF 15 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD
AN 1992-116104 [15] WPIDS

DNN N1992-086825 DNC C1992-054030
TI **Immunoassay** by scattered light - from interface between aq. specimen soln. and its optically transmissive container.
DC B04 J04 S03
IN HYMAN, J M; LINK, J G; SWOPE, C H
PA (ALKU) AKZO NV
CYC 16
PI EP 479345 A 19920408 (199215)* 8p
R: AT BE CH DE DK ES FR GB GR IT LI LU NL SE
JP 04233465 A 19920821 (199242) 5p
EP 479345 A3 19920909 (199338)
US 5350697 A 19940927 (199438) 7p
ADT JP 04233465 A JP 1991-217336 19910828; EP 479345 A3 EP 1991-202027 19910807; US 5350697 A US 1990-574184 19900828
PRAI US 1990-574184 19900828
AB EP 479345 A UPAB: 19931123
Ligand or a ligand binding partner, **labelled** with light scattering **particles**, in an aq. soln. is held in a sample container (4) made, at least in part, of an optically transmissive material with a refractive index greater than that of the aq. soln. A light source (1) directs light to the interface (3) between the aq. soln. and the optically transmissive portion of the container (4) at an angle less than the critical angle and a photodetector (5) receives light scattered by the light scattering **particles**.
USE/ADVANTAGE - In an **immunoassay** using light scattered by **labelling particles** on a ligand or ligand binding partner. The system introduces more light energy into the sample and so provides a high sensitivity for detecting ligands and ligand binding partners.
1/1
10

L22 ANSWER 13 OF 15 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD
AN 1990-225833 [30] WPIDS
CR 1989-358012 [49]
DNN N1990-175277 DNC C1990-097461
TI Simultaneous heterogeneous **immunoassay** of several **analyte** - by incubating sample with **solid phase** able to bind receptor also reactive with **analyte**.
DC B04 J03 S03
IN BAYER, H; KIRCH, P; KLEIN, C; KOPETZKI, E
PA (BOEF) BOEHRINGER MANNHEIM GMBH
CYC 17
PI EP 379216 A 19900725 (199030)*
R: AT BE CH DE ES FR GB GR IT LI LU NL SE
AU 9048582 A 19900726 (199038)
CA 2008100 A 19900720 (199040)
DE 3924239 A 19910124 (199105)
AU 633041 B 19930121 (199310)
EP 379216 B1 19940608 (199422) DE 13p
R: AT BE CH DE DK ES FR GB GR IT LI LU NL SE
DE 59005973 G 19940714 (199428)
ES 2055172 T3 19940816 (199434)
ADT EP 379216 A EP 1990-101095 19900119; DE 3924239 A DE 1989-3924239 19890721; AU 633041 B AU 1990-48582 19900119; EP 379216 B1 EP 1990-101095 19900119; DE 59005973 G DE 1990-505973 19900119, EP 1990-101095 19900119; ES 2055172 T3 EP 1990-101095 19900119

FDT AU 633041 B Previous Publ. AU 9048582; DE 59005973 G Based on EP 379216; ES 2055172 T3 Based on EP 379216
PRAI DE 1989-3901638 19890120; DE 1989-3924239 19890721
AB EP 379216 A UPAB: 19940727
Heterogeneous **immunoassay** process comprises (1) incubating with at least two receptors, R1 (which provides for binding to a **solid phase**) and R2 (which is a conjugate of a ligand, able to bind to the **analyte**, and a **label**), using a **solid phase** to which a specific-binding cpd. is attached; (2) sepg. the solid and liq. phases, and (3) detecting the **label** in one of these two phases.

The new features are that the **solid phase** is a material having specific binding partners (SBP) bonded to its surface, and that the test sample is incubated with several different receptors R1, with each having binding sites specific for both SBP and an **analyte**.

USE/ADVANTAGE - The method is used for simultaneous determn. of several antibodies or of several different tumour markers, hormones, allergens and pathogens. It provides accurate results, is rapid and suitable for automation. @(13pp Dwg.No.1/2)@
1/2

L22 ANSWER 14 OF 15 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD
AN 1990-194332 [26] WPIDS
DNN N1990-151212 DNC C1990-084045
TI Test **strip** for biological esp. immunological **assay** - of capillary **polymer** fibre with zones along support **strip** contg. reagent.
DC A89 D16 J04 S03
IN LERCH, R; MANGOLD, D; SCHLIPFENBACHER, R; STEINBISS, J; SCHLIPFENB, R
PA (BOEF) BOEHRINGER MANNHEIM GMBH; (HOFF) ROCHE DIAGNOSTICS GMBH
CYC 17
PI DE 3842702 A 19900621 (199026)* 9p
EP 374684 A 19900627 (199026)
R: AT BE CH DE ES FR GB GR IT LI LU NL SE
AU 8946168 A 19900621 (199031)
CA 2005564 A 19900619 (199036)
JP 02221860 A 19900904 (199041)
US 5160486 A 19921103 (199247) 9p
EP 525829 A2 19930203 (199305) DE 11p
R: AT BE CH DE ES FR GB GR IT LI LU NL SE
EP 374684 B1 19930630 (199326) DE 13p
R: AT BE CH DE ES FR GB GR IT LI LU NL SE
DE 58904840 G 19930805 (199332)
EP 525829 A3 19930224 (199348) 9p
ES 2041957 T3 19931201 (199401)
JP 2541674 B2 19961009 (199645) 8p
JP 08220097 A 19960830 (199645) 8p
JP 2807199 B2 19981008 (199845) 8p
CA 2005564 C 19981222 (199910)
ADT DE 3842702 A DE 1988-3842702 19881219; EP 374684 A EP 1989-122878 19891212; JP 02221860 A JP 1989-327505 19891219; US 5160486 A US 1989-450557 19891214; EP 525829 A2 EP 1992-117102 19891212; EP 374684 B1 EP 1989-122878 19891212; DE 58904840 G DE 1989-504840 19891212, EP 1989-122878 19891212; EP 525829 A3 EP 1992-117102 19891212; ES 2041957 T3 EP 1989-122878 19891212; JP 2541674 B2 JP 1989-327505 19891219; JP

08220097 A Div ex JP 1989-327505 19891219, JP 1995-281855 19891219; JP 2807199 B2 Div ex JP 1989-327505 19891219, JP 1995-281855 19891219; CA 2005564 C CA 1989-2005564 19891214
FDT EP 525829 A2 Related to EP 374684; DE 58904840 G Based on EP 374684; ES 2041957 T3 Based on EP 374684; JP 2541674 B2 Previous Publ. JP 02221860; JP 2807199 B2 Previous Publ. JP 08220097
PRAI DE 1988-3842702 19881219
AB DE 3842702 A UPAB: 19990416
One component of a clerical sample soln., which is taken into one end of a test-**strip**, undergoes biological reaction with a second component incorporated in the test-**strip**, while travelling through an interconnected seqeunce of capillary test-zones (21-25) on an elogated support (2), towards a detector zone (26) for the finally formed prod. The zones, whose properties may differ are formed of fleece with a large synthetic fibre content e.g., polyamide, polyester or polyvinylalcohol.

A third component specifically reacting with the first component may be incorporated along the transport path in sufficient amt. to reduce appreciably the amt. of first component and in the case of highly conc. **analyte** reduce the need for dilution. An intermediate zone (14) may include a soluble conjugate of the second reaction component, and also the initial reagent in soluble form.

USE/ADVANTAGE - Esp. for immunological **assay**. Produces good results with relatively hydrophobic material.
Dwg.2/2

L22 ANSWER 15 OF 15 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD
AN 1989-317337 [44] WPIDS
DNN N1989-241559 DNC C1989-140478
TI Test **strip** for **immunoassay** of component in liq. sample - comprises immobilised binding partner with high spreading rate, and transfer of unfixed conjugate to detection layer.
DC B04 J04 S03
IN LERCH, R; MUNTER, K; WILK, H E; MUENTER, K; WILK, H
PA (BOEF) BOEHRINGER MANNHEIM GMBH
CYC 18
PI EP 339450 A 19891102 (198944)* DE 12p
R: AT BE CH DE ES FR GB GR IT LI LU NL SE
DE 3814370 A 19891109 (198946)
AU 8933756 A 19891102 (199001)
JP 01313760 A 19891219 (199005)
ZA 8903062 A 19900131 (199009)
DD 280610 A 19900711 (199049)
US 5071746 A 19911210 (199201)
EP 339450 B1 19950222 (199512) DE 14p
R: AT BE CH DE ES FR GB GR IT LI LU NL SE
DE 58909018 G 19950330 (199518)
ADT EP 339450 A EP 1989-106993 19890419; JP 01313760 A JP 1989-106122 19890427; ZA 8903062 A ZA 1989-3062 19890426; US 5071746 A US 1989-337351 19890413; EP 339450 B1 EP 1989-106993 19890419; DE 58909018 G DE 1989-509018 19890419, EP 1989-106993 19890419
FDT DE 58909018 G Based on EP 339450
PRAI DE 1988-3814370 19880428
AB EP 339450 A UPAB: 19930923
Test carrier for **immunoassay** of one component in a liq. sample

comprises a layer contg. a soluble conjugate of a first, **labelled** binding partner (BP1), a porous fixing layer (PFL) contg. a **second binding partner** (BP2), specific for BP1, in immobilised form, and an optical detection layer.

(1) PFL is constructed so that its absorption velocity with which it transports fluid is so high that the time required for spreading out of the sample in the layer is significantly lower than the incubation time required for reaction of BP1 and BP2, and (2) ODL is attached to the test layer so that in a first position it is not in contact with PFL but can be brought to a second position where liq. exchange between it and PFL is possible.

USE/ADVANTAGE - These devices are easy to handle, provide reliable results and simple and inexpensive to make.

1/2

=> d .wp l26 1-14

L26 ANSWER 1 OF 14 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD
AN 1998-541744 [46] WPIDS
DNN N1998-421721 DNC C1998-162700
TI Homogenous affinity **assay** - and sensor for performing **assay**.
DC B04 D16 J04 S03
IN BALLERSTADT, R; SCHULTZ, J S
PA (UYPI-N) UNIV PITTSBURGH
CYC 1
PI US 5814449 A 19980929 (199846)* 9p
ADT US 5814449 A US 1996-653844 19960528
PRAI US 1996-653844 19960528
AB US 5814449 A UPAB: 19981125

The following are claimed: (1) a homogenous affinity **assay** method for the detection and measurement of an **analyte** of interest, comprising (A) providing: (i) an unmodified polyvalent receptor-bearing molecule having a receptor with at least **two binding** sites that have an affinity for the **analyte**; (ii) a first group of molecules grafted with an analogue to the **analyte** labeled with a first label molecule which generates a measurable response when in close proximity to a second label molecule, where the first label molecule is attached to at least one site on each member of the first group of molecules; and (iii) a second group of molecules grafted with the analogue and labeled with the second label molecule, which the second label molecule is attached to at least one site on each member of the second group of molecules; (B) exposing a sample suspected of containing the **analyte** to the unmodified receptor and the first and second groups of molecules, where in the absence of the **analyte**, members of the first group o f molecules and members of the second group of molecules are brought in close proximity through affinity binding of the members of the first and second groups of molecules to the receptors which results in the formation of a binding complex, the binding complex consisting of the members of the first and second groups of molecules and the receptors, and which results in the response between the first label and the second label, the response being a change in the physicochemical properties of the first label molecule when it is in close proximity to the second label molecule; where in the

presence of the **analyte**, the binding complexes dissociate or do not form due to competitive replacement or interaction of the analogue with the **analyte** and affinity binding of the **analyte** to at least one the binding site on the receptors; where the dissociation or the failure to form the binding complexes is in proportion to the concentration of the **analyte** of interest; where the dissociation or the failure to form the binding complexes affects the magnitude of the response; and where the response is conducted in the presence of a sensor which detects and measures the response, and which sensor detects and measures the response between the members of the first and second groups of molecules; (C) detecting and measuring the response with a sensor to determine the presence and amount of the **analyte**; (2) an affinity sensor comprising: (A) an unmodified polyvalent receptor-bearing molecule having at least **two binding** sites that have an affinity for an **analyte**, where the binding sites are on either one receptor or several receptors, and where the binding sites are in close proximity to each other; (B) a first group of **polymers** grafted with an analogue to the **analyte** and labeled with a first label molecule which generates a measurable response when in close proximity to a second label molecule; and (C) a second group of **polymers** grafted with the analogue and labeled with the second label molecule; (D) a chamber having a semipermeable dialysis membrane in which the receptors, the members of the first and second **polymer** groups are placed, where the dialysis membrane is permeable to the **analyte** but is not permeable to the receptor and the members of the first and second **polymer** groups; (E) a detector; and where in the absence of the **analyte**, members of the first group of **polymers** and members of the second group of **polymers** are brought in close proximity through affinity binding of the members of the first and second groups of **polymers** to the receptors which results in the formation of a binding complex consisting of the members of the first and second groups of **polymers** and the receptors, which affinity binding results in the response between the first label and the second label, the response being a change in the physicochemical properties of the first label molecule when it is in close proximity to the second label molecule, which reaction is measured; where in the presence of the **analyte**, the binding complexes dissociate from the receptors due to competitive replacement of the analogue with the **analyte** and affinity binding of the **analyte** to at least one the binding site on the receptors; where the dissociation is in proportion to the concentration of the **analyte**; where the dissociation causes a change in the magnitude of the response; and where the detector measures the response between members of the first and second **polymer** groups in the chamber; (3) a homogenous affinity **assay** method for the detection and measurement of an **analyte**, comprising: (A) providing: (i) an unmodified polyvalent receptor-bearing molecule having a receptor with at least **two binding** sites that have an affinity for the **analyte**; (ii) a first group of molecules grafted with an analogue to the **analyte** labeled with a first label molecule which generates a measurable response when in close proximity to a second label molecule, where the first label molecule is attached to at least one site on each member of the first group of molecules; and (iii) a second group of molecules grafted with the analogue and labeled with the second label molecule, which the second label molecule is attached to at least one site

on each member of the second group of molecules; (B) exposing a sample suspected of containing the **analyte** to the unmodified receptor and the first and second groups of molecules, where in the absence of the **analyte**, members of the first group of molecules and members of the second group of molecules are brought in close proximity through affinity binding of the members of the first and second groups of molecules to the receptors, which results in the formation of a binding complex consisting of the members of the first and second groups of molecules and the receptors, and which results in the response between the first label and the second label, the response being a change in the physicochemical properties of the first label molecule when it is in close proximity to the second label molecule; where in the presence of the **analyte**, the binding complexes dissociate or do not form due to competitive replacement or interaction of the analogue with the **analyte** and affinity binding of the **analyte** to at least one binding site on the receptors; where the dissociation or the failure to form the binding complexes is in proportion to the concentration of the **analyte**; where the dissociation or the failure to form the binding complexes affects th e magnitude of the response; where the response is conducted in the presence of a sensor which detects and measures the response, and which sensor detects and measures the response between the members of the first and second groups of molecules; and where the first label is a fluorochrome or **dye** with an emission spectrum and the second label is a fluorochrome or **dye** with a **fluorescence** absorption spectrum that overlaps with the emission spectrum and the response is a transfer of energy that changes the intensity of light emitted by the first label; and (C) detecting and measuring the response with a sensor to determine the presence and amount of the **analyte**.

USE - for the determination of drugs or metabolites, especially glucose or galactose.

Dwg.0/2

L26 ANSWER 2 OF 14 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD
AN 1998-251421 [22] WPIDS
DNN N1998-198451 DNC C1998-078450
TI New **solid phase immunoassays** - use a first component with a non-radioactive label bound to a **solid support** and a second component with a different non-radioactive label.
DC B04 D16 S03
IN MACALLAN, D
PA (XENO-N) XENOVA LTD
CYC 79
PI WO 9816833 A1 19980423 (199822)* EN 42p
RW: AT BE CH DE DK EA ES FI FR GB GH GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW
W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH HU IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW
ZA 9708504 A 19980624 (199831) 36p
AU 9743114 A 19980511 (199837)
ADT WO 9816833 A1 WO 1997-GB2552 19970922; ZA 9708504 A ZA 1997-8504 19970922;

AU 9743114 A AU 1997-43114 19970922
FDT AU 9743114 A Based on WO 9816833
PRAI GB 1996-21256 19961011
AB WO 9816833 A UPAB: 19980604
(A) A **solid phase assay** comprises: (a) providing a **solid support** on which is immobilised a first component of a binding interaction (BI) between the first component and a second component, the first component having a first label which is non-radioactive; (b) contacting the **solid support** either: (i) with a putative inhibitor of the BI and the second component of the BI, the second component having a second label which is non-radioactive and which is distinguishable from the first label, under conditions under which the BI, in the absence of inhibitor would be expected to occur; or (ii) with a specimen to be assayed for a predetermined **analyte**, which is the second component of the BI, under conditions under which the BI would be expected to occur if the **analyte** is present in the specimen; and (c) determining whether, or to what extent, the BI has occurred; (B) a test kit suitable for an **assay** as in (A) comprising: (a) a **solid support** ; and (b) labelled first and second components as in (A); (C) a process for identifying an inhibitor of a BI by: (a) carrying out steps (a), (b) (i) and (c) as in (A), and, if the putative inhibitor does not inhibit the BI; (b) repeating (a) using a different putative inhibitor in step (b) (i); (D) a test kit suitable for an **assay** of a specimen for a predetermined **analyte** which comprises a **solid support** upon which is immobilised a labelled first component of a BI as in (A); (E) a **solid phase assay** in which: (i) a **solid support** is provided, upon which a first component of a BI between the first component and a second component is immobilised; (ii) a step is carried out in which the **second** component may **bind** to the first component, and (iii) whether, or to what extent, the BI has occurred is determined; where the first component is labelled with a non-radioactive label.

The first and second label s are fluorometrically detectable. The binding interaction is an interaction between a ligand and a receptor, a protein/protein interaction or it is an interaction between a DNA sequence and at least 1 protein which is capable of binding to it. The first label and/or the second label is a substantially non-**fluorescent** lanthanide ion complex covalently bound to the component in question, which is detectable by adding a developer comprising a detergent and a chelating compound with which the lanthanide ion gives **fluorescence**, thereby dissociating the lanthanide ion from the component and forming a **fluorescent** lanthanide ion chelate. The first component is tumour necrosis factor alpha and the second component is p55 or p75 receptor protein.

ADVANTAGE - The **solid phase assay** incorporates a first label that can function as an internal control to assess whether, or to what extent, the complex formed by the binding interaction is lost before it is determined. If the complex is lost before it is determined, the signal generated by the first label will be inhibited.

Dwg.1/1

L26 ANSWER 3 OF 14 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD
AN 1998-087097 [08] WPIDS
DNN N1998-069108 DNC C1998-029571
TI **Fluorescence**-based direct **immunoassay** without washing or separation steps - uses **fluorescence** resonance energy transfer between receptor molecules on a lipid **film**, which are induced to aggregate by **analyte**.
DC B04 D16 S03
IN KEINANEN, K; LAUKKANEN, M; SODERLUND, H; KEINAENEN, K; SOEDERLUND, H
PA (VALW) VALTION TEKNILLINEN TUTKIMUSKESKUS
CYC 23
PI WO 9800714 A1 19980108 (199808)* EN 31p
RW: AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT SE
W: AU CA JP NO NZ US
FI 9602686 A 19971229 (199812)
AU 9732647 A 19980121 (199825)
NO 9806043 A 19981222 (199914)
FI 102922 B1 19990315 (199918)
ADT WO 9800714 A1 WO 1997-FI419 19970630; FI 9602686 A FI 1996-2686 19960628; AU 9732647 A AU 1997-32647 19970630; NO 9806043 A WO 1997-FI419 19970630, NO 1998-6043 19981222; FI 102922 B1 FI 1996-2686 19960628
FDT AU 9732647 A Based on WO 9800714; FI 102922 B1 Previous Publ. FI 9602686
PRAI FI 1996-2686 19960628
AB WO 9800714 A UPAB: 19980223
A **fluorescence**-based **immunoassay** method for detecting or determining the concentration of an **analyte** in a sample comprises: (a) attaching receptor molecules specific for the **analyte** to a lipid membrane on the plane of which they can move freely; the molecules are labelled in different places with a first fluorophore (donor) and a second fluorophore (acceptor); (b) contacting the sample and receptor molecules, and (c) measuring the **fluorescence** change caused by the change in aggregation level of the receptor due to **analyte** attachment.

The **analyte** is preferably an antigen (especially multivalent) and the receptor an antibody, or visa versa. In the former, the antigen may also be monovalent if the method comprises adding a known amount of molecules with **two** or more separate antibody-**binding** antigen structures to the sample. The lipid membrane is preferably a liposome or planar membrane, and the receptor molecules preferably attached via lipid molecules attached to them chemically or by genetic engineering. The **fluorescence** donor is preferably **fluorescein** or derivatives and the acceptor rhodamine or derivatives.

USE - The method allows an **analyte** to be detected or its concentration determined in a biological sample based on its ability to induce aggregation of receptor molecules labelled with a fluorophore. It uses **fluorescence** resonance energy transfer (FRET), in which energy from a molecular chromophore (donor) excited to a high energy state is transferred to another chromophore (acceptor) close by. For example, when antibodies labelled with FRET donor and acceptor fluorophores respectively come into contact with a multivalent antigen (i.e. carrying more than one antibody-binding epitope), the antibodies moving freely on the lipid membrane come into close contact, microaggregation takes place and energy transfer from the excited donor fluorophore to the acceptor fluorophore may occur (FRET phenomenon). **Fluorescence** characteristics of donor and acceptor, or their relative proportions, can

then be measured.
ADVANTAGE - Use of receptor molecules attached to a lipid layer so as
to allow lateral movement enables the FRET phenomenon, and therefore direct **immunoassay** without the need for washing and separation steps of previous **fluorescence**-based **assays**.
Dwg.0/2

L26 ANSWER 4 OF 14 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD
AN 1994-226614 [28] WPIDS
CR 1997-235190 [21]
DNN N1994-178635 DNC C1994-103803
TI Stabilised microsphere **particles** composition - having hydrophobic liquid cores with layer of amphiphilic cpd. covalently bonded to ligand, used as tracers in **assays**.
DC A96 B04 S03
IN FEINDT, H H; HAHN, G D; MALICK, A
PA (BECT) BECTON DICKINSON CO; (BECT) BECTON DICKINSON & CO
CYC 19
PI EP 606613 A1 19940720 (199428)* EN 13p
R: AT BE CH DE DK ES FR GB GR IT LI LU NL SE
AU 9352335 A 19940714 (199432)
CA 2110831 A 19940705 (199435)
JP 07000805 A 19950106 (199511) 10p
US 5393527 A 19950228 (199514) 8p
AU 666986 B 19960229 (199616)
JP 2554835 B2 19961120 (199651) 10p
US 5580735 A 19961203 (199703) 8p
US 5593843 A 19970114 (199709) 7p
US 5635357 A 19970603 (199728) 8p
US 5688697 A 19971118 (199801) 8p
SG 48316 A1 19980417 (199828)
EP 606613 B1 19990310 (199914) EN
R: AT BE CH DE DK ES FR GB GR IT LI LU NL SE
DE 69323857 E 19990415 (199921)
ADT EP 606613 A1 EP 1993-120395 19931217; AU 9352335 A AU 1993-52335 19931210;
CA 2110831 A CA 1993-2110831 19931207; JP 07000805 A JP 1993-324065 19931222; US 5393527 A US 1993-1907 19930104; AU 666986 B AU 1993-52335 19931210; JP 2554835 B2 JP 1993-324065 19931222; US 5580735 A Div ex US 1993-1907 19930104, US 1994-343305 19941122; US 5593843 A Div ex US 1993-1907 19930104, US 1994-343795 19941122; US 5635357 A Cont of US 1993-1907 19930104, US 1994-343313 19941122; US 5688697 A Div ex US 1993-1907 19930104, Div ex US 1994-343305 19941122, US 1996-642373 19960503; SG 48316 A1 SG 1996-8866 19931217; EP 606613 B1 EP 1993-120395 19931217; DE 69323857 E DE 1993-623857 19931217, EP 1993-120395 19931217
FDT AU 666986 B Previous Publ. AU 9352335; JP 2554835 B2 Previous Publ. JP 07000805; US 5580735 A Div ex US 5393527; US 5593843 A Div ex US 5393527; US 5635357 A Cont of US 5393527; US 5688697 A Div ex US 5393527, Div ex US
5580735; DE 69323857 E Based on EP 606613
PRAI US 1993-1907 19930104; US 1994-343305 19941122; US 1994-343795 19941122; US 1994-343313 19941122; US 1996-642373 19960503
AB EP 606613 A UPAB: 19970530
A compsn. comprising microspherical **particles** is new. The **particles** comprise: (a) a hydrophobic liq. core; and (b) an amphiphilic cpd. covalently linked to a ligand, forming a layer on the

particles surface, so that the ligand can bind to a receptor.
Also claimed are: (1) a method for making microspherical **particles**, comprising: (a) preparing a solution comprising a water miscible organic solvent, liq. silicone cpd. and amphiphilic cpd. having a functional gp. for covalent coupling to a ligand; (b) combining the solvent solution with an aq. medium, to form an oil-in-water microemulsion with a dispersed phase microspherical **particles** comprising a liq. core with the silicone cpd. and a layer on the surface of the core comprising the amphiphilic cpd.; (c) covalently coupling the ligand to the amphiphilic cpd.; and (d) isolating microspherical **particles** coupled to the ligand; and (2) a method for making functionalised microspherical **particles**, comprising: (a) preparing a solution comprising a water miscible organic solvent liq. silicone cpd. and amphiphilic ligand; and (b) combining the solvent solution and aq. medium to form an oil-in-water microemulsion with a dispersed phase microspherical **particles** comprising a liq. silicone core and a layer on the surface of the core, comprising the amphiphilic ligand.
USE - The microspherical **particles** are useful, in a tracer compsn. for detecting a 1st ligand or a receptor for a ligand (claimed). Dwg.0/0

L26 ANSWER 5 OF 14 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD
AN 1994-077445 [10] WPIDS
DNN N1994-060383 DNC C1994-035258
TI **Immunoassay** method using flow cytometry - includes mixing and reacting sample liq. **fluorescent** labelled antibody reacting with **particles** of differing refractive indices etc..
DC A96 B04 D16 J04 S03
PA (NITL) NITTO DENKO CORP
CYC 1
PI JP 06027112 A 19940204 (199410)* 8p
ADT JP 06027112 A JP 1992-184173 19920710
PRAI JP 1992-184173 19920710
AB JP 06027112 A UPAB: 19940421
An **immunoassay** method comprises mixing and reacting a sample liq., **fluorescence**-labelled antibody and a reagent formed by fixing antibody or antigen **binding** with different **analytes** to **two** or more kinds of **particles** of different refractive indexes, and determining the **fluorescent** intensity of the **particles** by flow cytometer.
Particles used in the invention are pref. e.g. synthetic high **polymer particles**, erythrocyte or gelatin **particles**, pref. water-insoluble and water-dispersible type synthetic high **polymer particles**. As **particles** of high refractive index, e.g. **polystyrene particles** are used, while as those of low refractive index, e.g. trifluoroethyl methacrylate **particles** used.
USE/ADVANTAGE - The **immunoassay** by using flow cytometer. Two or more kinds of **analytes** can be simultaneously and accurately determined from the difference in the locations of appearance of scattered light dot plots.
In an example, the simultaneous determination of AFP, CEA and Beta2-myoglobin was carried out by the invention's method by using carboxylated **polystyrene particles** and carboxylated

(styrene/2,2,2-trifluoroethyl methacrylate) copolymer **particles**.
Dwg.0/0

L26 ANSWER 6 OF 14 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD
AN 1994-009393 [02] WPIDS
DNN N1994-007569 DNC C1994-003795
TI **Immunoassay** using **particles** e.g. liposome(s) contg. different **dyes** - useful for detecting more than one **analyte** at the same time.
DC B04 D16 S03
IN HASSKAMP, J H; MCFARLAND, E C; MERCOLINO, T J
PA (BECT) BECTON DICKINSON CO
CYC 8
PI EP 577092 A2 19940105 (199402)* EN 14p
R: DE FR GB IT
AU 9341440 A 19940106 (199408)
CA 2099433 A 19940103 (199412)
US 5369036 A 19941129 (199502) 13p
EP 577092 A3 19940907 (199532)
JP 07287016 A 19951031 (199601) 10p
AU 668171 B 19960426 (199624)
JP 2643775 B2 19970820 (199738) 10p
JP 09184841 A 19970715 (199738) 10p
ADT EP 577092 A2 EP 1993-110399 19930630; AU 9341440 A AU 1993-41440 19930622;
CA 2099433 A CA 1993-2099433 19930630; US 5369036 A US 1992-908136 19920702; EP 577092 A3 EP 1993-110399 19930630; JP 07287016 A JP 1993-164809 19930702; AU 668171 B AU 1993-41440 19930622; JP 2643775 B2 JP
1993-164809 19930702; JP 09184841 A Div ex JP 1993-164809 19930702, JP 1996-246359 19930702
FDT AU 668171 B Previous Publ. AU 9341440; JP 2643775 B2 Previous Publ. JP 07287016
PRAI US 1992-908136 19920702
AB EP 577092 A UPAB: 19960115
Process for assaying for at least one **analyte** (I) utilising a binder (B) on a **solid support** and a tracer (T) is claimed. (T) comprises at least one particulate label connected to at least one ligand, the particulate label including at least one detectable substance, and (T) comprising at least two detectable substances. (B) is contacted with (I) and (T), and the substances are detected after the tracer is bound to (B) or at least one (I) bound to (B).

The particulate label pref. comprises a sac, such as a liposome, microcapsule or stabilised colloidal **particles**.

USE/ADVANTAGE - The **assay** can be tailored for many different types of **assay**. E.g. it may be used to detect antigens (or their corresp. antibodies), such as malaria, Streptococcus, influenza, rubella, meningococcus, Candida, respiratory syncytial virus, HIV, tumour markers, digoxin, theophylline, ferritin, FSH, LH, prolactin, testosterone, progesterone, HCG, TSH, T4 and T3. Advantages of the **assay** include enhanced sensitivity, the ability to detect more than one **analyte** at the same time, the elimination of confusion between reagents and the ability to simultaneously detect more than one wavelength at the same time in instrumental analysis allowing greater discrimination of signal above noise.
Dwg.1/8

Dwg.1/8

L26 ANSWER 7 OF 14 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD
AN 1993-320892 [40] WPIDS
CR 1995-319470 [41]; 1995-319471 [41]
DNN N1993-247131 DNC C1993-142862
TI Binding **assays** for **analyte** in test sample - using magnetically-labelled reagent.
DC B04 S03
IN ROHR, T E
PA (ABBO) ABBOTT LAB
CYC 22
PI WO 9319370 A1 19930930 (199340)* EN 55p
RW: AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE
W: AU CA JP KR
AU 9339193 A 19931021 (199407)
EP 631669 A1 19950104 (199506) EN
R: BE CH DE ES FR GB IT LI
JP 07504986 W 19950601 (199530) 22p
TW 247348 A 19950511 (199530)
EP 631669 A4 19961023 (199710)
JP 2625577 B2 19970702 (199731) 20p
ADT WO 9319370 A1 WO 1993-US2334 19930315; AU 9339193 A AU 1993-39193 19930315; EP 631669 A1 EP 1993-908337 19930315, WO 1993-US2334 19930315; JP 07504986 W JP 1993-516646 19930315, WO 1993-US2334 19930315; TW 247348 A TW 1993-102921 19930416; EP 631669 A4 EP 1993-908337 ; JP 2625577 B2 JP 1993-516646 19930315, WO 1993-US2334 19930315
FDT AU 9339193 A Based on WO 9319370; EP 631669 A1 Based on WO 9319370; JP 07504986 W Based on WO 9319370; JP 2625577 B2 Previous Publ. JP 07504986, Based on WO 9319370
PRAI US 1992-854151 19920320
AB WO 9319370 A UPAB: 19951026
Determn. of the present or amt. of an **analyte** in a test sample comprises: (a) incubating the test sample with a **solid phase** reagent and a magnetically labelled reagent, where the **solid phase** includes a first binding member and the reagent includes a **second binding** member, and where each member binds the other or the **analyte**, so partitioning the labelled reagent between unbound labelled reagent and labelled reagent bound to the **solid phase** in proportion to the amt. of **analyte** present, (b) sepg. unbound reagent from bound reagent, (c) applying a magnetic field to the bound reagent, and (d) determining the magnitude of force exerted on the **solid phase** by the bound reagent in the magnetic field as a measure of the amt. of **analyte** in the sample.

Also claimed is an **assay** unit for determining the presence or amt. of an **analyte** in a sample comprising: (a) a reaction vessel in which free and immobilised magnetically-labelled reagent are produced in proportion to the amt. of **analyte** in the sample, (b) a sepn. means for sepg. the immobilised reagent from the free reagent, (c)

a magnetic field generator for the applicn. of a magnetic field to the immobilised or free reagent, and (d) a measurement means to assess the magnetic responsiveness of the immobilised or free reagent to the field. The unit may alternatively comprise (a), (c) and (d), where a magnetic field is applied to both free and immobilised reagent, and the responsiveness of both reagents to the field is measured.

USE/ADVANTAGE - This detection method does not require complex washing steps, and is simpler and faster as it eliminates the addn. of subtrates and triggering solns., such as enzyme-substrate incubations for colour development, **fluorescence** substrate turnover or the triggering of chemiluminescence. The method does not require the complete removal of unbound **assay** reagents and test sample components before determn. of the results. It also permits the use of binding members with low binding affinities. The sepn. of unbound or non-specifically bound label from specifically bound label can be automatically adjusted electronically to suit the binding affinities of the reagents used in the **assay**. The **assay** appts. is self-calibrating, uses simple disposables, has few moving parts and is amenable to computer control.
Dwg.2/3
Dwg.2/3

L26 ANSWER 8 OF 14 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD
AN 1993-258833 [32] WPIDS
CR 1992-072187 [09]; 1993-093786 [11]
DNN N1993-199080 DNC C1993-115004
TI Multilayer **assay** device for determining **analytes** in blood, etc. - with measurement zone defined by seal formed between low melting point support layer and woven mesh.
DC A89 A96 B04 J04 S03 T01
IN ERTINGSHAUSEN, G; MCGEEHAN, J K; MELUCH, T B
PA (ACTI-N) ACTIMED LAB INC
CYC 42
PI WO 9315404 A2 19930805 (199332)*
RW: AT BE CH DE DK ES FR GB GR IE IT LU MC NL OA PT SE
W: AT AU BB BG BR CA CH CZ DE DK ES FI GB HU JP KP KR LK LU MG MN MW NL NO NZ PL PT RO RU SD SE SK UA US
AU 9334764 A 19930901 (199350)
WO 9315404 A3 19940217 (199515)
EP 643837 A1 19950322 (199516) EN
R: AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE
US 5411858 A 19950502 (199523) 11p
EP 643837 B1 19981223 (199904) EN
R: AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE
DE 69322781 E 19990204 (199911)
ADT WO 9315404 A2 WO 1993-US400 19930121; AU 9334764 A AU 1993-34764 19930121;
EP 643837 A1 EP 1993-903537 19930121, WO 1993-US400 19930121; US 5411858 A
CIP of US 1989-352985 19890517, CIP of US 1991-749521 19910826, Cont of US 1992-824252 19920122, US 1993-104934 19930812; EP 643837 B1 EP 1993-903537 19930121, WO 1993-US400 19930121; DE 69322781 E DE 1993-622781 19930121, EP 1993-903537 19930121, WO 1993-US400 19930121
FDT AU 9334764 A Based on WO 9315404; EP 643837 A1 Based on WO 9315404; US 5411858 A CIP of US 5087556, CIP of US 5234813; EP 643837 B1 Based on WO 9315404; DE 69322781 E Based on EP 643837, Based on WO 9315404
PRAI US 1992-824252 19920122; US 1989-352985 19890517; US 1991-749521 19910826; US 1993-104934 19930812
AB WO 9315404 A UPAB: 19950626
Device for assaying fluid samples formed of a number of layers which are sealed together, comprises a sample initiation area (303) a measurement

zone (320) and a draw zone (306). The measurement zone is formed by heat sealing a support material (320) to a woven mesh material (307) forming a seal along the sides of the measurement zone, in which the material of the support has a lower melting point than the material forming the woven mesh.

Pref. support (320) is of **polyethylene** and is sepd. from the woven mesh (307) of polyester or nylon by a channel layer (308). The measurement zone has a two part **dye** system applied along its length by immobilising one **dye** component on **particles** of microcrystalline cellulose, silica or latex, suspending the **particles** in a binder of polyvinyl alcohol, mixing the **particles** and **binder** with a **second dye** component and applying the mixt. to the woven mesh in the measurement zone by an ink jet printer, which can be controlled by tests on the lengths of colour bars found in tests on the **assay** devices.

USE/ADVANTAGE - In an **assay** device for quickly determining **analytes** in blood or other body fluids. Device can be manufactured on an automated production line. Use of the low melting point support sealed to a woven mesh allows the volume of a channel through which the sample flows in the measurement zone to be accurately controlled.

Dwg.1/3

Dwg.1/3

L26 ANSWER 9 OF 14 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD
AN 1992-340799 [42] WPIDS
DNN N1992-259941 DNC C1992-151536
TI **Assay** performing appts. using evanescent waves - uses light source to direct beam via transparent memberd onto non rigid **film** cuvette holding sample at less than critical angle for inelastic scattering and subsequent detection.
DC B04 J04 S02 S03
IN CRAIG, A R; DAVIS, J E; HOCHBERG, A M; ZOHA, S J
PA (DUPO) DU PONT DE NEMOURS & CO E I
CYC 16
PI CA 2059394 A 19920731 (199242)* 29p
US 5192510 A 19930309 (199312) 10p
WO 9318405 A1 19930916 (199338)# EN 32p
RW: AT BE CH DE DK ES FR GB GR IT LU MC NL SE
W: CA
US 5300423 A 19940405 (199413) 10p
ADT CA 2059394 A CA 1992-2059394 19920115; US 5192510 A US 1991-648005 19910130; WO 9318405 A1 WO 1992-US1676 19920305; US 5300423 A Div ex US 1991-648005 19910130, US 1992-940371 19920903
FDT US 5300423 A Div ex US 5192510
PRAI US 1991-648005 19910130
AB CA 2059394 A UPAB: 19931115
The appts. includes an optically transparent sample holder having an interior volume and inner wall, and an optically transparent member adapted to contact the sample holder to provide an optical interface with the sample, having a refractive index greater than the refractive index of the sample. Radiation is directed from a light source (10) through the trnasparent member to the sample holder at angles below the critical angle relative to the optical interface to illuminate the interior of the sample

holder. Pref. the sample holder is a non-rigid **film** cuvette.

A tag is attached to a first **binding** member. A **second binding** member is immobilised on the inner wall of the sample holder at the optical interface, such that the presence of **analyte** in the sample modulates the attachment of the tag to the wall. A detector senses radiation produced by inelastic scattering. The transparent member is shaped to direct evanescent wave radiation from the inner wall region of the sample holder, lying between the plane of the **analyte** binding inner wall and the critical angle of the optical interface, to the detector.

USE/ADVANTAGE - For biological fluid **analyte** concn. detection to distinguish board from free material in **immunoassays**. Illuminating beam need not pass through sample prior to reaching transparent member. For detecting anitbodies, hormone receptors or DNA probes. Use of a separate bag **film** and prism makes coating with bioactive material simpler.

1/3

Dwg.1/3

L26 ANSWER 10 OF 14 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD
AN 1992-325012 [40] WPIDS
DNN N1992-248450 DNC C1992-144384
TI Immuno-chromatographic, sandwich type **assay** for hormones etc. - has antibody deposited in symbol shape on carrier, which has flow obstruction to ensure complete symbol development in contact with sample and labelled antibody.
DC A89 B04 J04 S03
IN KOIKE, T
PA (ROHT) ROHTO PHARM CO LTD
CYC 5
PI EP 505636 A1 19920930 (199240)* EN 9p
R: DE GB NL
JP 04299262 A 19921022 (199249) 6p
US 5401667 A 19950328 (199518) 9p
EP 505636 B1 19960306 (199614) EN 9p
R: DE GB NL
DE 69117731 E 19960411 (199620)
ADT EP 505636 A1 EP 1991-306196 19910708; JP 04299262 A JP 1991-64504 19910328; US 5401667 A US 1992-858823 19920327; EP 505636 B1 EP 1991-306196 19910708; DE 69117731 E DE 1991-617731 19910708, EP 1991-306196 19910708
FDT DE 69117731 E Based on EP 505636
PRAI JP 1991-64504 19910328
AB EP 505636 A UPAB: 19931115
Immunochromatographic method comprises (1) affixing, in the shape of a symbol, a first antibody (Ab1) specific for a particular **analyte** (A), to a chromatographic medium in (or into) contact with a second, labelled antibody (Ab2) also specific for (A). The presence or absence of (A) is determined from the appearance of the symbol which is made visible by the label. The new feature is that the passage of the sample is obstructed immediately before (and opt. also immediately after) contact with Ab1.

Ab2 is pref. premixed with the sample, or it is also immoblised (upstream of Ab1). The chromatography medium comrpises glass fibres, nitrocellulose and nylon.

The label pref. comprises colloidal Au **particles**, coloured latex or insoluble **dye polymer**. Ab1 is pref. affixed

by direct printing with (1) an aq. antibody soln. or (2) a latex to which Ab1 is bonded. Liq. flow is pref. obstructed by lateral notches or by a hydrophobic substance applied to the medium, particularly notches upstream and downstream of the Ab1 contg. region.

USE/ADVANTAGE - For in vitro diagnosis (e.g. of hormones or steroids) and since it provides a very clear result can be used by untrained persons. By introducing a disruption to the flow, complete reaction of Ab1 (typically present in the vertical line of a plus symbol) is ensured so that complete development of the symbol is achieved (contrast known methods were incomplete development of the vertical line is caused because already-formed complex impedes sample migration).

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Dwg.1/3

L26 ANSWER 11 OF 14 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD
AN 1989-365286 [50] WPIDS
DNN N1989-277897 DNC C1989-161892
TI Immobilising coloured **dye** cpd. on solid matrix - by coupling first and second **dye** components, esp. for use in **assays** for **analyte**(s).
DC B04 J04 S03
IN GEORGEVICH, G G; SIEGEL, N A
PA (ABBO) ABBOTT LAB
CYC 6
PI EP 345460 A 19891213 (198950)* EN 10p
R: DE ES FR IT
JP 02032257 A 19900202 (199011)
EP 345460 B1 19950906 (199540) EN 16p
R: DE ES FR IT
DE 68924098 E 19951012 (199546)
ES 2079363 T3 19960116 (199610)
US 5541115 A 19960730 (199636) 7p
ADT EP 345460 A EP 1989-108000 19890503; JP 02032257 A JP 1989-132514 19890525; EP 345460 B1 EP 1989-108000 19890503; DE 68924098 E DE 1989-624098 19890503, EP 1989-108000 19890503; ES 2079363 T3 EP 1989-108000 19890503; US 5541115 A Cont of US 1988-204443 19880609, US 1991-710237 19910603
FDT DE 68924098 E Based on EP 345460; ES 2079363 T3 Based on EP 345460
PRAI US 1988-204443 19880609; US 1991-710237 19910603
AB EP 345460 A UPAB: 19930923
A method of immobilising a coloured **dye** cpd. on a solid matrix, the **dye** cpd. being formed from a first **dye** component and a second **dye** component, is claimed comprising (a) activating reactive gps. in at least one of the matrix and the **second dye** component. (b) Covalently **binding** the **second dye** component to the matrix via the activated reactive gps. and (c) contacting the matrix bound second **dye** component with a first **dye** component to form a coloured covalent adduct which remains covalently immobilised on the matrix. The second **dye** component may be e.g. 5-amino-2-naphthalene sulphonic acid (ANS) or a diazonium salt. The first **dye** component may be an **analyte** capable of forming a coloured **dye** cpd. with the second **dye** component.

USE - The **solid phase** matrices can be used for detecting and/or quantifying specific **analytes** in various test samples. The **analyte** itself may be the first **dye** component or it may be a cpd. of biological interest such as glucose or cholesterol. Alternatively the **analyte** may be a marker which in turn is generated or rendered reactive in proportion to the actual **analyte** of interest.
0/2

L26 ANSWER 12 OF 14 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD
AN 1988-199582 [29] WPIDS
DNN N1988-152279 DNC C1988-089070
TI **Assay** for specific binding pair member - using reagent to enhance the detectability of luminescer reversibly associated with the non-aq. phase of **particle**.
DC B04 J04 S03
IN KIRAKOSSIAN, H; PEASE, J; ULLMAN, E F; WENG, L; KIRAKOSSIA, H
PA (SYNT) SYNTEX USA INC; (SYNT) SYNTEX (USA); (SYNT) SYNTEX (USA) INC
CYC 13
PI EP 275139 A 19880720 (198829)* EN 20p
R: BE CH DE ES FR GB IT LI NL SE
JP 63191065 A 19880808 (198837)
US 4891324 A 19900102 (199009) 17p
EP 275139 B 19920415 (199216) EN 29p
R: BE CH DE ES FR GB IT LI NL SE
DE 3869969 G 19920521 (199222)
CA 1312822 C 19930119 (199309)
ES 2036667 T3 19930601 (199330)
JP 2653807 B2 19970917 (199742) 18p
ADT EP 275139 A EP 1988-300033 19880105; JP 63191065 A JP 1988-609 19880105; US 4891324 A US 1987-925 19870107; EP 275139 B EP 1988-300033 19880105;
DE
3869969 G DE 1988-3869969 19880105, EP 1988-300033 19880105; CA 1312822 C CA 1988-555881 19880105; ES 2036667 T3 EP 1988-300033 19880105; JP 2653807
B2 JP 1988-609 19880105
FDT DE 3869969 G Based on EP 275139; ES 2036667 T3 Based on EP 275139; JP 2653807 B2 Previous Publ. JP 63191065
PRAI US 1987-925 19870107
AB EP 275139 A UPAB: 19930923
An **assay** method for determining an **analyte** in a sample where the **analyte** is a member of a specific binding pair (sbp) consisting of ligand its complementary receptor, comprises (a) combining in an **assay** medium a sample suspected of contg. an **analyte** and a conjugate of a first sbp member with a **particle** where a luminescer is reversibly associated with a non aqs. phase of the **particle**, with the provise that when the first sbp member is not complementary to the **analyte**, a **second** sbp member capable of **binding** to the **analyte** and the first sbp member is added, (b) sepg. the unbound conjugate from conjugate that is bound to the **analyte** or the second sbp member, (c) adding to the bound conjugate or the unbound conjugate a reagent for enhancing detectability of the luminescer and (d) measuring the light emission of the luminescer acted upon by the reagent.
Suitable luminesces are squarate **dyes**, umbelliferones, **fluoresceins**, cyanines, merocyanines and rhodamines-prefd. squarate **dyes** are of formula (I) (R3, R4=alkyl, alkenyl or

alkynyl gps. contg. 2-26C; R5, R6=lower alkyl or hydroxy substd. or carboxy substd. lower alkyl, including lower alkyl esters, where lower alkyl has 1-10C; R7, R8=H, OH, MeO or as for R3, R4).

USE/ADVANTAGE - The method permits optional detection of a large number of luminesces that are reversibly associated with the non aqs. phase of a **particle** conjugated to a member of a sbp. It is esp. used for analysing **analytes** in body fluids such as drugs, eg. theophylline, thyroxine and digoxin, proteins, polypeptides, nucleic acids and polysaccharides.

0/0

L26 ANSWER 13 OF 14 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD
AN 1988-065934 [10] WPIDS
DNN N1988-049925 DNC C1988-029513
TI Immuno-separating **strip** for detecting **analyte**(s) - comprises bibulous material having receptors capable of binding antibodies and conjugated **analyte**.
DC B04 D16 J04 S03
IN OLSON, J D
PA (SYNT) SYNTEX USA INC; (SYNT) SYNTEX (USA)
CYC 15
PI EP 259157 A 19880309 (198810)* EN 16p
R: AT BE CH DE ES FR GB IT LI LU NL SE
US 4959307 A 19900925 (199041)
US 4963468 A 19901016 (199044)
EP 259157 B 19920115 (199203)
R: AT BE CH DE ES FR GB IT LI LU NL SE
US 5085987 A 19920204 (199208)
US 5085988 A 19920204 (199208)
DE 3776041 G 19920227 (199210)
CA 1303492 C 19920616 (199230) FR
ES 2037721 T3 19930701 (199324)
US 5260193 A 19931109 (199346) 11p
US 5260194 A 19931109 (199346) 11p
ADT EP 259157 A EP 1987-307776 19870903; US 4959307 A US 1986-904597 19860905;
US 4963468 A US 1987-13615 19870212; US 5085987 A US 1990-566949 19900813;
US 5085988 A US 1990-548046 19900705; CA 1303492 C CA 1987-546080 19870903; ES 2037721 T3 EP 1987-307776 19870903, Cont of US 1990-548046 19900705, US 1991-787996 19911105; US 5260193 A Cont of US 1986-904597 19860905, Cont of US 1990-548046 19900705, US 1991-787996 19911105, US 1991-787997 19911105; US 5260194 A CIP of US 1986-904597 19860905, Cont of US 1987-13615 19870212, Cont of US 1990-566949 19900813, US 1991-787997 19911105
FDT ES 2037721 T3 Based on EP 259157, Cont of US 5085988; US 5260193 A Cont of US 4959307, Cont of US 5085988, Cont of US 5085987; US 5260194 A CIP of US 4959307, Cont of US 4963468, Cont of US 5085987
PRAI US 1986-904597 19860905; US 1987-13615 19870212
AB EP 259157 A UPAB: 19940120
Determining the presence of an **analyte** that is capable of binding specifically to an antibody in a sample suspected of contg. the

analyte comprises (a) contacting, with a test soln. contg. the sample, antibodies to the **analyte** and a conjugate of the **analyte** and a label, a contact portion of a piece of bibulous material (BM), capable of being traversed in at least one direction by the test soln. by capillary migration, the BM contg. non-diffusively bound to a situs on the BM separate from the contact portion a first receptor capable of binding to the conjugate, the surface area of the situs being less than that of the BM, the BM further-contg. a **second** receptor capable of **binding** the antibodies non-diffusively bound to the BM at a portion between the situs and the contact portion. (b) allowing at least a portion of the test soln. to traverse the BM by capillary migration and thereby contact the situs and (c) examining the situs for the presence of the conjugate. Pref. the BM is a paper **strip**.

USE/ADVANTAGE - **Analyte**(s) can be detected in a single **assay** on a single test element. The method allows for simple and efficient sepn. of conjugate bound to antibody and unbound conjugate. Dwg.0/0

L26 ANSWER 14 OF 14 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD
AN 1983-816264 [46] WPIDS
CR 1981-55423D [31]; 1983-716989 [29]
DNN N1983-203829 DNC C1983-110876
TI Simultaneous calibration heterogeneous **immunoassay** - for simple, rapid and accurate determn. e.g. of morphine in body fluids.
DC B04 B05 D16 J04 S03
IN LITMAN, D J; ULLMAN, E F
PA (SYNT) SYVA CO; (SYNT) SYNTEX USA INC
CYC 18
PI EP 93613 A 19831109 (198346)* EN 48p
R: AT BE CH DE FR GB IT LI LU NL SE
AU 8314110 A 19831110 (198351)
JP 58206966 A 19831202 (198403)
BR 8302286 A 19840103 (198409)
US 4533629 A 19850806 (198534)
US 4540659 A 19850910 (198539)
CA 1193193 A 19850910 (198541)
ES 8700882 A 19870201 (198712)
EP 93613 B 19880817 (198833) EN
R: AT BE CH DE FR GB IT LI LU NL SE
IL 68506 A 19880630 (198835)
DE 3377744 G 19880922 (198839)
US 4843000 A 19890627 (198933)
US 4849338 A 19890718 (198936)
US 5156953 A 19921020 (199245) 15p
JP 05209886 A 19930820 (199338) 17p
JP 05060059 B 19930901 (199338) 19p
US 5432057 A 19950711 (199533)# 14p
JP 2651060 B2 19970910 (199741) 17p
ADT EP 93613 A EP 1983-302482 19830503; JP 58206966 A JP 1983-76337 19830502; US 4533629 A US 1982-374849 19820504; US 4540659 A US 1982-399107 19820716; ES 8700882 A ES 1983-521948 19830429; US 4843000 A US 1985-736493 19850521; US 4849338 A US 1985-736485 19850521; US 5156953 A CIP of US 1979-106620 19791226, CIP of US 1981-255022 19810417, Cont of US 1982-394107 19820716, Cont of US 1985-736485 19850521, US 1989-333160

19890404; JP 05209886 A Div ex JP 1983-76337 19830502, JP 1991-261174 19830502; JP 05060059 B JP 1983-76337 19830502; US 5432057 A CIP of US 1979-106620 19791226, CIP of US 1981-255022 19810417, Cont of US 1982-399107 19820716, Cont of US 1985-736485 19850521, Cont of US 1989-333160 19890404, US 1992-937252 19920828; JP 2651060 B2 Div ex JP 1983-76337 19830502, JP 1991-261174 19830502

FDT US 5156953 A Cont of US 4116535, CIP of US 4299916, CIP of US 4391904, Cont of US 4540659; JP 05060059 B Based on JP 58206966; US 5432057 A CIP of US 4299916, CIP of US 4391904, Cont of US 4540659, Cont of US 4849338, Cont of US 5156953; JP 2651060 B2 Previous Publ. JP 05209886

PRAI US 1982-399107 19820716; US 1979-106620 19791226; US 1981-255022 19810417; US 1982-374849 19820504; US 1985-736493 19850521; US 1982-394107 19820716; US 1989-333160 19890404; US 1992-937252 19920828

AB EP 93613 A UPAB: 19941021

Determn. of the presence in a sample of an **analyte** (I) that is a member of a specific binding pair (mip) consisting of ligand and receptor (antiligand) involves use of a labelled mip, a signal producing system and a measurement first surface. The amount of labelled mip binding to the first surface as a result of mip complex formation is related to the amount of (I) present. The measurement surface and sample are combined in an aq. medium, and simultaneously or subsequently the measurement surface is combined with the members of the signal producing system, including at least one labelled mip to provide an amount of signal generating cpd. at the first surface related to the amount of (I).

In the **assay** medium a calibration second surface is present to provide a signal level from the signal generating cpd. as a result of a ligand-receptor binding involving homologous mip or enzyme-substrate binding. The ratio of signal at the second surface to signal at the first surface defines the amt. of (I) present independently of non-specific factors.

The procedure is simple, rapid and accurate for qualitative and quantitative use by semi-skilled personel. (I) are mono-epitopic or polyepitopic and include polypeptides, proteins, polysaccharides, nucleic acids, bacteria, viruses, chromosomes, genes, mitochondria, nuclei, cell membranes, etc. and other **analytes** as described in U.S. 4299916 and also include drugs, pollutants, chemicals, contaminants, etc.

Dwg.0/0

Dwg.0/0